REMARKS

Claims 2-4, 6, 11-13, 15 and 17-18 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. More specifically, the Examiner objects to the claim language "at least one insulating solid piece" as not being supported by the specification. In response, Applicant amended this claim language to recite "an insulating solid piece" and requests withdrawal of the §112 rejection on this basis.

Claims 3-4, 6, 11, and 17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (U.S. Patent No. 5,747,690) and Werner (U.S. Patent No. 6,133,059). In response, Applicant amended independent claim 11 to include the subject matter of claim 18. Therefore, the rejection is now moot.

Claim 2 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Park and Werner, and further in view of Dyck et al. (U.S. Patent No. 6,393,913 B1). Since claim 18 is incorporated into claim 11, the rejection is now moot as it applies to claim 2 depending from claim 11.

Claims 12-13 and 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Park and Werner, and further in view of Hashimoto (U.S. Patent No. 6,543,285 B2). Applicant respectfully traverses the rejection as it applies to amended claim 11, which incorporates the subject matter of claim 18 therein.

The Examiner acknowledges on page 3 of the Office Action that Park and Werner teach every aspect of the invention except the moving electrode having a thickness W and a stable electrode column having an area of $9W^2$ or a length equal to or larger than $3W$

between the datum planes/column width. However, the Examiner suggests that it would be obvious to construct the actuator of Park and Werner based on the teachings of Hashimoto. More specifically, the Examiner concludes that it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Dyck, Werner, and Park to discover the optimal or workable ranges because it involves only routine skill in the art based on the teachings of Hashimoto. Applicant respectfully traverses this statement of the Examiner.

A particular parameter must first be recognized as a result-effective variable (i.e., a variable which achieves a recognized result) before determination of the optimum or workable ranges of the variable might be characterized as routine experimentation. (See MPEP 2144.05 II. B.). None of the cited references discloses a relationship between first and second datum planes and a wall thickness of a moveable electrode. While the Examiner asserts that Hashimoto teaches this feature, this is incorrect for the following reasons.

First, as shown in FIG. 2 of the present application, a stable electrode 19a has an outer surface that defines a datum plane FP. A second stable electrode 19b has an outer surface that defines another datum plane RP, and a moveable electrode 14 has a thickness W. Between the datum planes FP, RP, there is a defined distance ED. In the present application, claim 18 requires that a distance between the first and second datum planes (i.e., the distance ED) is equal to or larger than three times the thickness W of the moveable electrode. The Examiner recognizes that the Dyck, Werner, and Park fail to teach and suggest these

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dimensions as result-effective variables, but cites Hashimoto as teaching these dimensions as result-effective variables. However, Hashimoto does not teach these variables.

Instead, Hashimoto teaches a relationship between a width w of electrode fingers 120 of a fixed electrode 100, a width W of electrode fingers 220, a distance d between electrode fingers 120 and electrode fingers 220, and a distance D between ends of the electrode fingers 120, 220 and basal portions 110, 210 of respective electrodes 100, 200. A maximum displacement A of the moveable electrode 200 is also disclosed by Hashimoto. (See FIG. 3 and Mathematical Expression 3 in Col. 11). Hashimoto does not disclose or suggest a variable that includes a thickness of the basal portion 210 of the moveable electrode 200, which corresponds to the thickness W of the moveable electrode of the present application. Moreover, Hashimoto is silent regarding the distance between first and second datum planes (i.e., a distance between outer surfaces of stable electrode walls). Therefore, since Hashimoto and the other references fail to even recognize these dimensions as a result-effective variable, no determination of an optimum or workable range of the variables can be characterized as routine experimentation.

Accordingly, for all of the reasons recited above, Applicant respectfully submits that the cited references do not recognize any relationship between the distance between datum planes defined by a distance between the outside surfaces of the stable electrode walls, and the thickness of the wall of the moveable electrode, and therefore there can not be any optimization of these parameters. Moreover, the cited references, even taken in combination, fail to disclose or suggest a distance between first and second datum planes
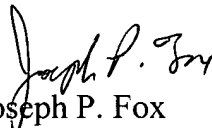
as being equal to or greater than three times a thickness W of the moveable electrode. For these reasons, withdrawal of §103 rejection is respectfully requested.

Claim 15 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Park and Werner, and further in view of Fujii et al. (U.S. Patent No. 6,227,050 B1). Since claim 18 is incorporated into claim 11, the rejection is now moot as it applies to claim 15 depending from claim 11.

For all of the foregoing reasons, Applicant submits that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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